UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Arguments

Applicant's arguments filed 12/7/09 have been fully considered but they are not persuasive.

Applicant argues on 2nd paragraph of page 7 that,

> "Applicant's disclosed method for predicting a future quality of a communication channel derives <u>a predictive CQI</u> on a per time slot basis. There is nothing in Gaal that would suggest generating such a value on a time slot basis, *nor is there anything that suggests **determining a predictive CQI** at all.*" (bolded emphasis added)

The examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As addressed in the previous action, this alleged missing limitation is taught by the combination of Qui and Gal's teaching *not* by Gal alone. Qui teaches "determining a predictive channel quality indication" and Gal teaches determining a channel quality indication on "a time slot basis". Thus the combination of Qui and Gal would yield the teaching of "determining a predictive channel quality indication on a time slot basis".

Applicant argues that,

> "Qui discloses a system wherein long range prediction is used for a receiver and transmitter for determining CSI parameters on future fading channel conditions. The transmitter then uses these predictive values to adapt transmission parameters in view of the predicted channel conditions. These future channel fading conditions can **only be** determined in Qui up to 15 slots/subframe in advance. See Qui, paragraph [0022]. Therefore, Qui teaches away from the determination of the predicted channel conditions on a per time slot basis."

The examiner respectfully disagrees.

Following is an excerpt from Qui teaching on paragraph 22,

"…The availability of these forthcoming CSI parameters **up to** 15 slots/subframe in advance has made possible otherwise impossible new room in optimizing system design."

The words "up to" suggest the time slot value can be vary as long as it is less than or equal to 15. Thus it can possibly be as low as one timeslot and as high as 15 timeslot. Thus this suggestion of the time slot value being up to 15 is a mere example and does not restrict or teach away that the time slot cannot be one or that it must only be 15 as applicant alleged. Furthermore, paragraph 67 teaches that "Numerous modifications and alternative embodiments of the invention will be apparent to those skilled in the art in view of the foregoing description." This disclaimer clearly shows that one of ordinary skill can set the time slot value to be different values which can range from one to fifteen.

The examiner notes that the concept of predicting a channel quality indication on a time slot basis is well known (see also US 7051268; C3 L60-63, the RS 104 **predicts** the **SINR** over future signal **segment(s)** for each of the TSs in the RS 104 active set. In one embodiment, the signal segment is **a slot**.)

Applicant argues again that,

"There is no disclosure in Qui regarding transmitting the predicted CQI including a recommended transport block size, modulation format, or number of codes."

The examiner respectfully disagrees. Qui teaches the above alleged missing limitations (see paragraphs 20-21, 25-26 and 45).

"[0020] The RLFFC 308 **feedbacks** some measured parameters describing the channel fading conditions from the mobile user equipment 304 (UE) **to** the base station 302 (BTS). These parameters are measured in UE 304.

[0021] **The FAU 310 makes decisions on some selection on coding rate, modulation level, power allocation, multi-codes, number of rate** matching bits required to fill a frame, ARQ, antenna diversity, scheduling, cell site selection, and etc. The FAU 310 can exist either in UE or BTS, depending on the final implementation complexity."

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